User manual for the Myotest device and the Myotest PRO software

March 2008

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1 Disclaimer

Any warranty is void in the event of use which is abusive, illegitimate, unauthorized or not in conformity with the instructions for use of the device or legal provisions applicable within the location in which it is used.

The Myotest and its software provide information about muscle performance which cannot be deemed a medical diagnosis under any circumstances.

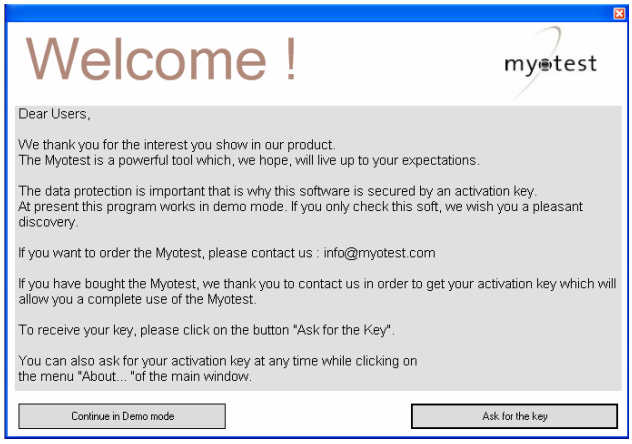
In the event of problems with your device and/or software, please contact your distributor.

The Myotest measures the acceleration that athletes produce during movement. If they do not correctly follow the instructions for use and information supplied, the results of the measurements taken by the Myotest may be inaccurate.
Athletes' health and physical condition must be such that they can carry out the movements and exercises required to use the Myotest. The services of a professional, recognized coach must always be used to confirm this.

Under no circumstances must athletes use weights which they consider to be too heavy. The loads suggested by the Myotest are indicative, and must be confirmed by a professional coach. If an athlete feels any physical discomfort during movements and exercises carried out using the Myotest, he or she must immediately stop the movement or exercise in question, and consult his or her doctor and coach.

Myotest accepts no liability for any injuries sustained practicing your sport, moving fitness machines or carrying out tests. In all cases, Myotest's liability is limited to product replacement.

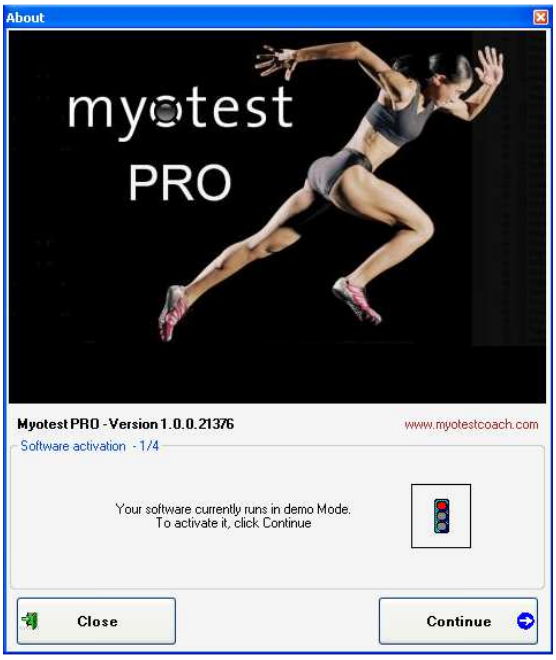
2 Software activation


Welcome !
myotest
Dear Users,
We thank you for the interest you show in our product.
The Myotest is a powerful tool which, we hope, will live up to your expectations.
The data protection is important that is why this software is secured by an activation key.
At present this program works in demo mode. If you only check this soft, we wish you a pleasant discovery.
If you want to order the Myotest, please contact us : info@myotest.com
If you have bought the Myotest, we thank you to contact us in order to get your activation key which will allow you a complete use of the Myotest.
To receive your key, please click on the button "Ask for the Key".
You can also ask for your activation key at any time while clicking on the menu "About... "of the main window.
Continue in Demo mode
Ask for the key

When you open your software for the first time, a welcome message appears on the screen, telling you that you are in the software's DEMO mode. This means that you can use the full application with the tests supplied in the database, but that you cannot transfer tests from the Myotest, nor import them from outside.

You have the choice of either continuing to explore the software in DEMO mode, or activating your software by clicking on the "Ask for my key" button

When software activation is requested, the screen opposite is displayed. The application's "DEMO" status is shown by a traffic light set to red.

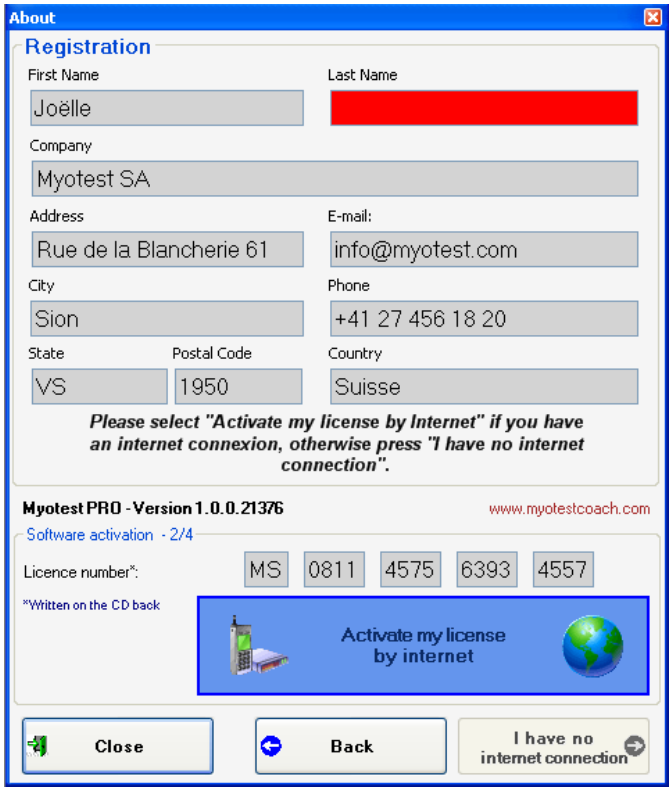


It is possible to continue with the software demonstration without activating it. To do so, simply close the window using the "Close" button.

Activation can be halted at any time by using this button to close the window.

To activate the software, simply click on the "Continue" button.

Note: The activation procedure must be carried out on the computer on which Myotest PRO was installed. It is not possible to activate from another computer.



To activate the software, at least the First Name and Last Name fields on the form need to be filled in. Mandatory fields remain red until they are filled in, at which point activation is possible.

The license number is to be entered in the "Software activation – 2/4" box.

This number is to be found:

- on the back of the CD that comes with the device, if you bought the Myotest PRO package from a re-seller.
- in the e-mail that you received if you bought the software from our website.

If you have an internet connection, you can click on the blue "Activate my license by internet" button.

A message then confirms to you that activation has been successfully carried out and that your software is now fully operational. You are now able to transfer tests from your Myotest.

If you have no internet connection on this computer, please follow the following steps.

2.1 Manual activation of the Myotest PRO software

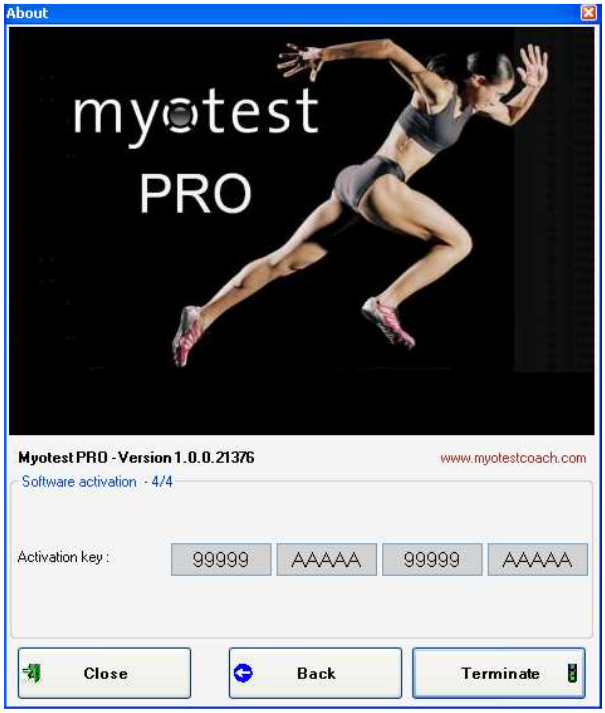
After entering your license number, click on the "I have no internet connection" button.

It is possible to manually activate your software over the telephone by calling our help desk during office hours, or by sending an e-mail.

Irregardless of the method chosen, it is essential to give the correct "Personal ID".

Once you have received your activation key, you can press the "Continue" button.

It is possible to halt the activation procedure and return later to complete it. Under these circumstances, the software will continue to run in DEMO mode.



Once you have received your activation key, you can enter it in the four input fields designed for the purpose.

An information message will then appear on the screen to tell you that activation has run successfully and that your software is now fully operational.

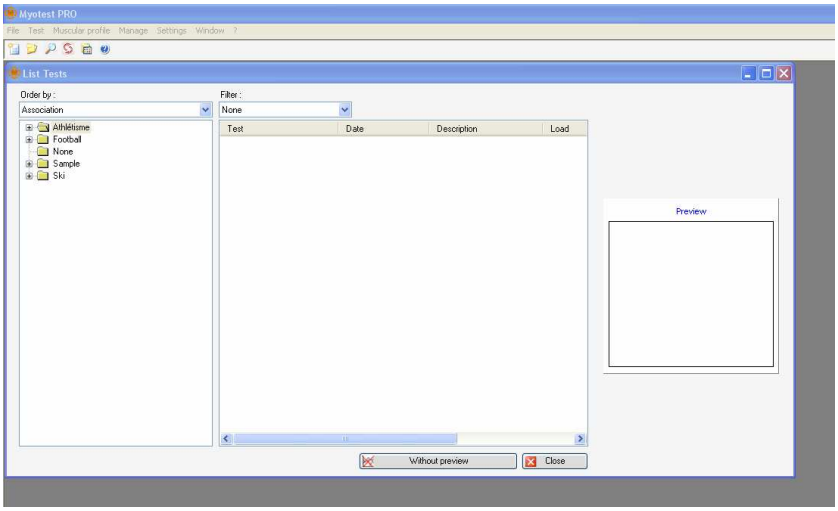
The activation procedure is now over.

3 Analysis and description of the screens

3.1 Main window

The windows can be opened by means of the different menus in the main menu, or by the buttons located on the tool bar. The latter have tooltips providing additional information.

When the program is started, an image of the Myotest logo progressively appears and then disappears. After a few seconds, the program opens the form by default, which shows test results in a tree structure.



This form shows the athletes in a tree structure, which can be sorted either by association, or directly by athlete, by first name or ID.
In this tree structure, we have the possibility of adding, modifying or deleting an athlete or an association by right clicking on the mouse.

The application is offered in several languages (settings - language). The set of labels, menus, scrolling lists, error messages or even tooltips appear in the selected language. When the program is opened, the main window appears by default in maximal size. It is possible to change languages at any time while using the software.

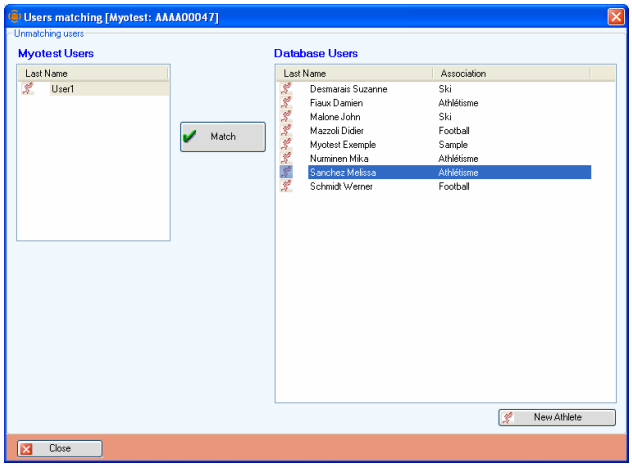
4 Transferring tests with Myotest

4.1 Step 1 – User connection

Connect the Myotest to your computer using a free USB port. Click on the data transfer button with the two arrow icon in the software's menu bar (or from the Test Transfer… menu).

If this is the first time that this Myotest has been connected to the computer for a data transfer, a screen appears prompting you to link the various users defined on your device (User1, User2, etc.) to the athletes recorded in your database.

If appropriate, it is possible to create new athletes directly from this screen by clicking on the "New athlete" button, and then link them afterwards.

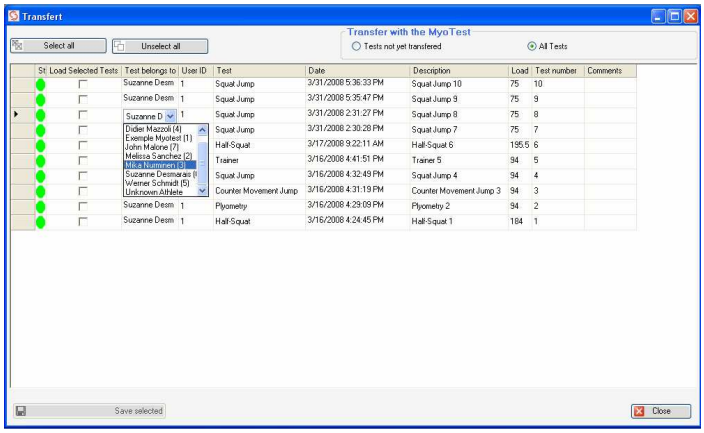


Consequently, when transferring tests with this Myotest in the future, the software will recognize these users and directly suggest defined athletes, making the transfer selection process more rapid.

It is also possible to not link all the Myotest users to an athlete in the database. If this is the case, a message appears when closing this screen indicating that this screen will reappear next time tests are transferred from this Myotest.

If all the users are linked to the system, then this screen is no longer displayed.

4.2 Step 2 – Transferring tests



The data from the tests are stored in the Myotest's memory and are automatically transferred.
The window opposite appears after a few seconds (the time varies according to the number of tests in the memory).

It is therefore possible to transfer tests and muscular profiles carried out using the device.

Only tests and muscular profiles for Myotest users (User1, User2, etc.) that are linked to known athletes in the local database are displayed.

As this manual link is first and foremost an aid to transfer, it is entirely possible to define a different athlete for all or part of these tests. In the event of a change in test allocation, you will be asked whether the change involves only the selected test, or all tests relating to the same user (user no. column). If the answer is yes, all tests will be defined as relating to the new athlete chosen.

You can see the data entered into the Myotest, which will allow you to sort the tests and muscular profiles that you want to load.

The two options found at the upper right of the screen allow you to display either only new tests/muscular profiles (which have not yet been transferred to the software), or all the tests/profiles held in the Myotest.

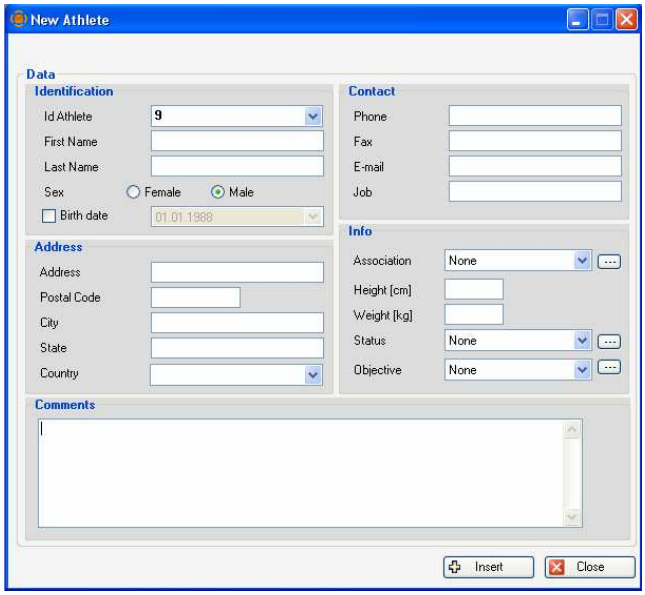
A check-box on each row gives the user the choice of whether or not the test is to be added to the database. When the check-box is clicked, a check is run to find out whether the Athlete ID added from the Myotest exists in the database. If the Athlete ID does not exist, a dialog box asks us to either create a new athlete or select an existing one from the drop-down list.

The "Save the selected tests" button allows checked tests to be saved. The selected tests are first of all loaded from Myotest in order to process the necessary changes. These tests are then saved in the database.
Each time a test is saved, the progress bar is refreshed, so that the user is informed about the progress of operations.

When all the tests have been saved, the message shown opposite is displayed.

After clicking on "OK", you will reach the manager.

4.3 Adding an athlete



In this window, you have the possibility of adding a new athlete. This function can be carried out during the remote transfer of the data, or from the menu Management-Athlete-Add.

The Athlete ID suggested to the user is the first available identifier in the database. In order to remain consistent with the number chosen when entering information in the Myotest, you can enter an identifier of your choice. In this situation, if the selected identifier already exists, a warning message appears and the software will then suggest the first free identifier.

If the association to be linked to the athlete does not exist in the pull-down list, the button with the three small points offers the possibility of creating one. The same principle is used for adding a status and an objective.

The fields IDAthlete, First name and Last Name are obligatory. If the latter are not filled out, a warning message appears, indicating which field has not been filled out. The field IDAthlete accepts only whole numbers as values, other characters are ignored.
The fields Height and Weight permit the input of whole numerical values or with decimals.

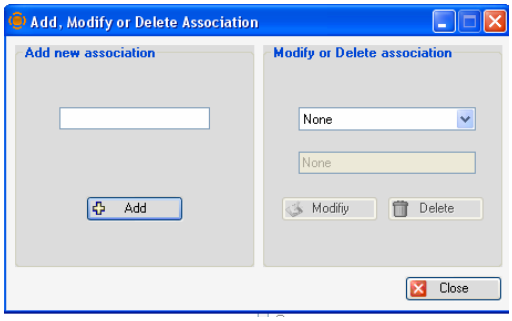
4.4 Modification and deletion of an athlete

This window permits the modification or deletion of athlete. It is opened from the menu Manage-Athlete-Modify or Delete. First of all, the selection of an athlete is required in order to be able to carry out a modification or a deletion.

If you decide to delete an athlete, all of the tests carried out by the latter will likewise be deleted (deletion in cascade). Confirmation of the deletion is requested before the final deletion of an athlete. You have the possibility of modifying the athlete's data, but not his identifier. The obligatory fields are the same as for the New athlete form.

4.5 Addition, deletion and modification of an association

This form permits the addition, deletion or modification of an association. It is opened from the menu Manage-Association, Manage-Status or also from Manage-Objective.
To carry out the modification or the deletion of an association, you need to select the latter beforehand in the pull-down list. It should be stressed that certain values such as "None" are fixed values and cannot be modified or deleted.

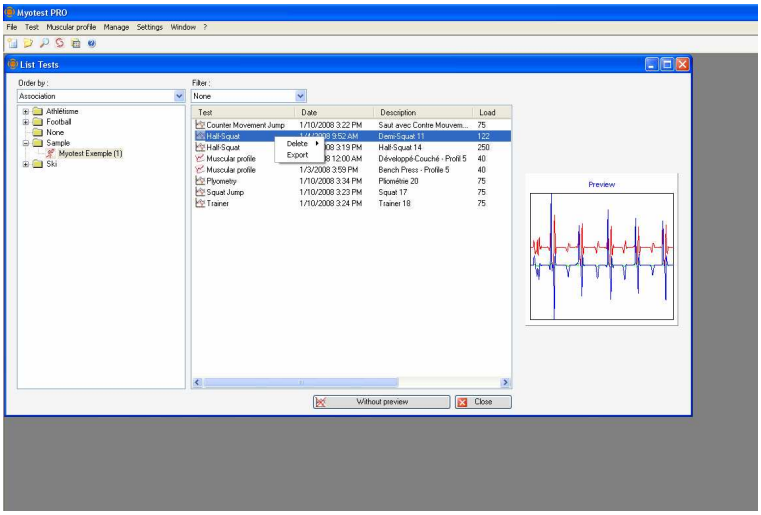


5 Using the Myotest PRO software

In the following section, we will explore all the application's screens in order to be able to use them in the best possible way. The key notion is the TEST, and everything revolves around muscle performance.

5.1 List of tests

This form shows a tree structure for athletes, which can be sorted either by association, or directly by athlete (last name, first name, identifier). A filter allows each athlete's tests, histograms, comparisons, muscular profile or tracking to be displayed individually. By default, the filter is "None". In this way, all of athlete's data is shown.

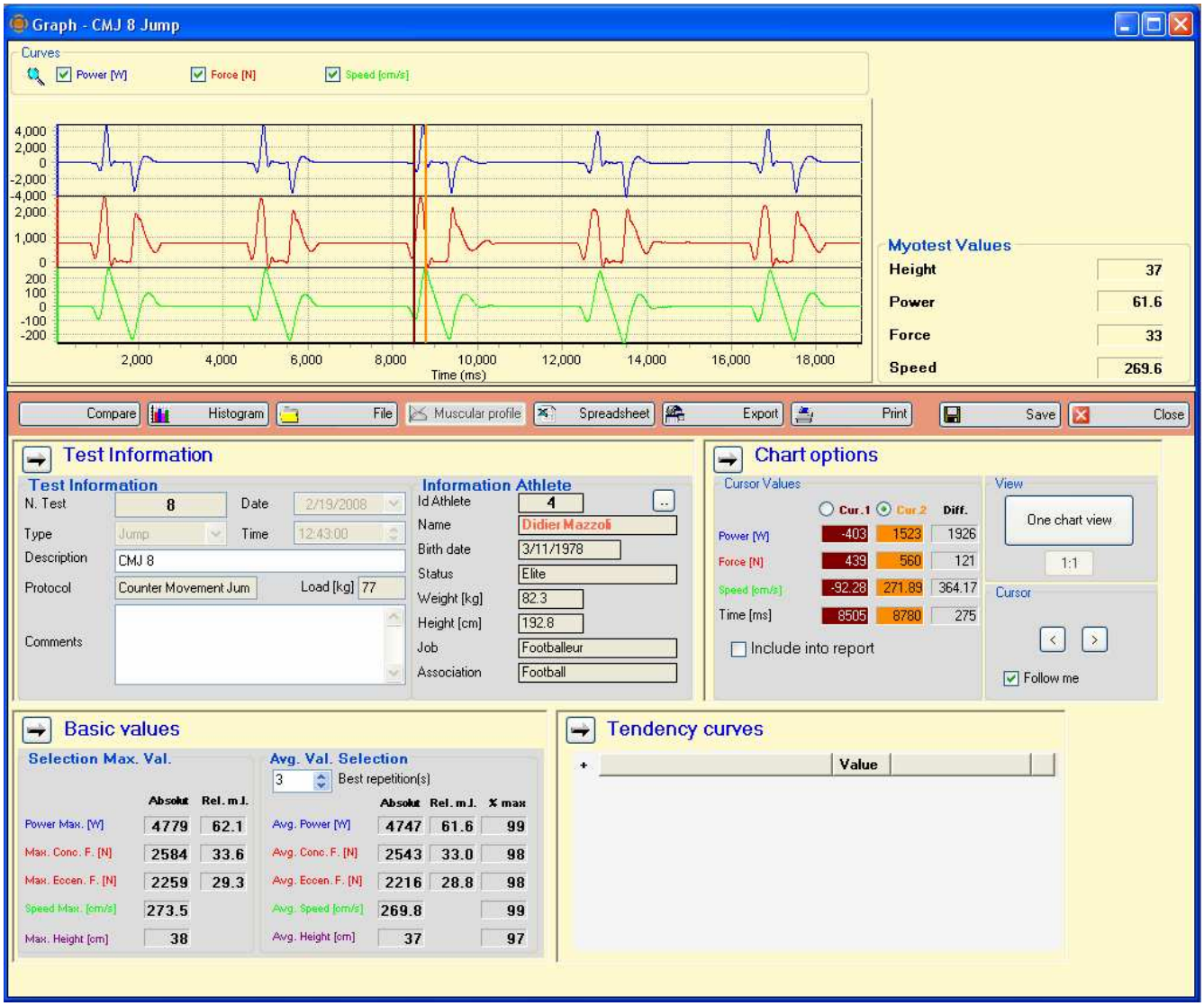


When an athlete is selected in the tree structure, the list of all filtered elements is shown at the right. The latter can be sorted in ascending order in relation to a particular column (description, date, load, type, or test number given by the machine). This sorting is carried out by clicking on the header of the chosen column.
A right-click of the mouse on one element for the athlete displays a pop-up menu offering various options such as deletion of the test(s) selected or the export of one or more tests. Double clicking on a test opens the test management screen.

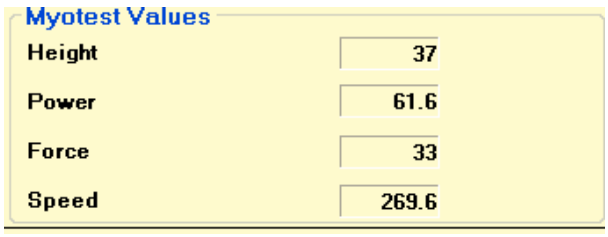
A window permits a preview of the graphic linked to the test selected.

5.2 Showing a test

A test is opened by a double mouse click in the list of athlete tests.
The graphic depicting the curves appears by default in divided mode. All the curves are shown and enable precise analysis of the subject's behavior. The colored boxes to be checked above the graphics allow the corresponding curves to be displayed or hidden.



Here is the display, during jumps, of force, of strength and of speed.



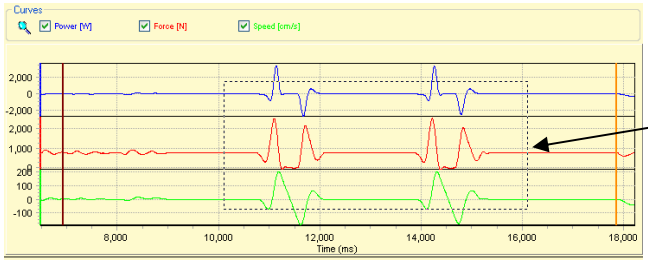
This box shows the same values as on the Myotest screen, once the test is carried out. The values displayed change according to the type of test carried out.

5.2.1 Using the graphic tool

Graphs can be displayed in 3 modes:

- Min: the display on opening
- Medium: the graph covers two thirds of the screen
- Max: full screen mode.

Click on the magnifying glass found top-left of the screen to move through the three display modes.



By holding the left mouse button down and making a rectangle of dotted lines going from bottom left to top right, a zoom on the selected area can be obtained. To un-zoom the chart, simply click on the "1:1" button found in the "Chart options" box.

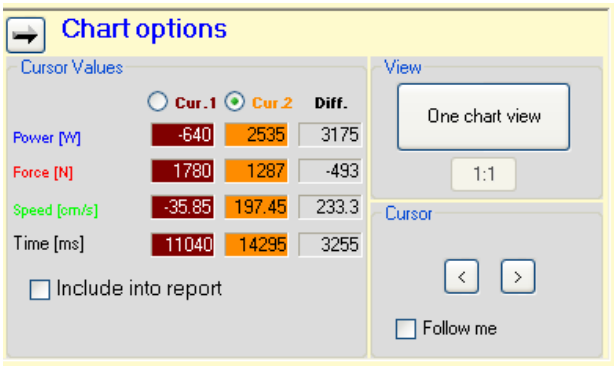
By holding down the right mouse button, the mouse cursor is turned into a hand. The latter permits you to move all of the curves of the graphic from left to right and vice versa.

5.2.2 Graph options and Cursor values series

It is possible to find out the curve value at a given moment by placing the cursor on the graph (symbolized by a vertical bar). It is also possible to place a second cursor on the chart to find out the difference between these two points in time.

The first cursor is placed by clicking with the left mouse button at the desired place. The second cursor is placed by clicking with the right mouse button at the desired place.

The software displays the values at the defined points and the differences in values in the "Cursor values" area.



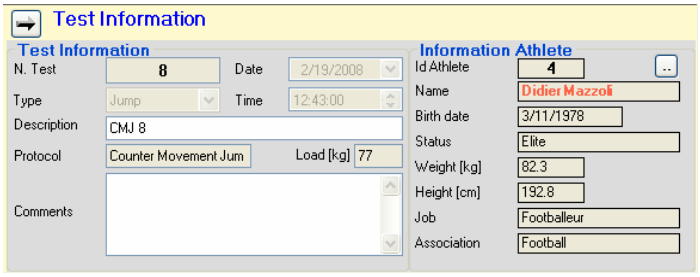
It is possible to move the vertical bar step-by-step by clicking on the shift buttons found in the "Chart options" group. It is also possible to move this bar by keeping the left mouse button held down.

Click on the "Simple view" button to display all the curves overlaid on a single axis.

Click the "1:1" button to unzoom the selection.
It is possible to include the test cursor values in the printed report by selecting the "Include in the report" check-box.

5.2.3 Information about the test and the athlete

This group contains information regarding the test (number, type, date, time, description, load).



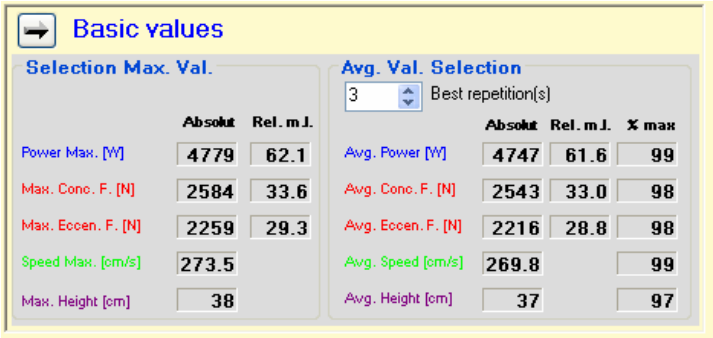
The description of the test may be amended and comments may be added. These comments will be printed on the report.

The athlete's information is shown in read-only. To amend these values, click on the "…" button located top right of the "Athlete information" area.

5.2.4 Basic values

The "Selection Max. Val." area shows the absolute and relative maximum values of the load moved (defined when carrying out the test with the Myotest).

The "Avg. Val. Selection" area is used to compute the average values for a test for the desired number of repetitions (the average of 1, 2 or n repetitions).



The application fetches the n best repetitions on the basis of **speed** for CMJ, SJ, plyometrics or free tests (Coach type), and on the basis of **power** for the bench press and half-squat.

Note: It is possible for differences to appear between the values displayed by the Myotest and the average values computed by the software. This is due to the fact that the Myotest sometimes rejects certain repetitions considered as irregular (not following instructions, for instance) and does not include them when calculating the values displayed on the screen in the "Myotest Values" area. This is not the case with the software.

5.3 The analysis functions

The software offers several analysis tools. In the mode display of a test, a series of buttons is available on the lower right part of the window.

This function permits the comparison of two tests.

This function produces histograms for force, strength and speed, as well as the highest points and contact times and of flight during a jump or repeated jumps.

This function shows the muscular evolution of the subject.

This function enables you to find the ideal load to be lifted in order to improve the performance parameters.

This button opens an Excel file containing the values for acceleration, force, strength and speed.

This button allows a test to be exported with the extension .myo.

The button permits the printing of a report sheet with a summary of the subject's performance; maximum values attained (the values on the cursor, if desired), curves describing the movement.

5.4 Test comparison

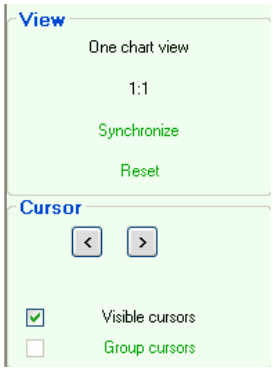
You can superimpose two tests in order to compare the differences and similarities. This window can be called up from the main menu of the application (Test – Compare – Test…) or from the button "Compare" of the analysis functions from 5.3.

The colored boxes to be checked allow the corresponding series to be displayed or hidden. The same principle as in the display form for the tests has been used for zooming or for moving all of the graphic curves.

5.4.1 Values for series and graphic controls

The key "Test 2…" allows you to select the test which is to be compared with the first one. When two tests have been selected, the graphic displays two cursor bars, each referring to one test. By clicking on a precise point on a curve, it is displayed in bold, and you can move the cursor bar for the values corresponding to the test. The latter displays the values of the different curves in relation to a precise point of the temporal axis in the test column under the tab "Cursor values". Clicking the mouse on the other curve is attributed to the series of the other test. Since test 1 is always the first one opened, test 2 is the one which is compared to test 1.

The difference between the selected values of the two tests is shown in the column for differences in the same tab "Cursor values".



The navigation arrows apply to the active test, i.e. the one where the chart background is highlighted (in yellow).

It is also possible to move a cursor bar by holding down the left mouse button.

For the "Simple view" (two test on one chart), it is possible to group cursors – two cursors on top of each other – and thus to have the values at one point on the graph. As in the test display screen, cursors are controlled using the left and right buttons on the mouse.

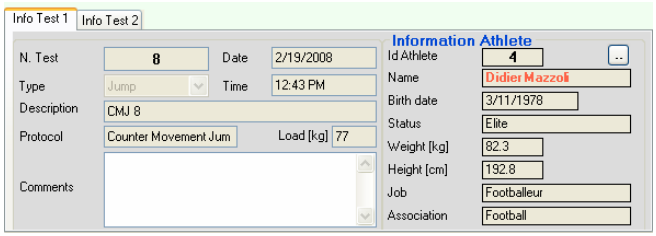
The "Synchronize" button allows the adjustment of the two tests in order to facilitate the comparison. When this button is clicked, the values of the series in the second test located at the position of the second cursor will be moved over to the position of the first cursor.

It should be noted that the second test is moved in relation to the distance between the two cursors. As a result, by playing with the position of these cursors, we can obtain, by clicking several times on the button, a visual effect positioning one test over the other.

The "Reset" button allows us to return to the initial status of the test comparison and thus to cancel the synchronization manipulation.

It should be stressed that it is always possible to select other tests to carry out a new comparison by clicking on the two buttons "Test 1…" and "Test 2…"

5.4.2 Information about the test



The "Info Test 1" and "Info Test 2" tabs hold information concerning the test (type, date, time, description, load) and details about the athlete. This information can be modified.

The information about tests and athletes is contained in the "Info Test 1" tab for the first test and "Info Test 2" for the second test.
Athlete information can be amended by clicking on the "…" button.

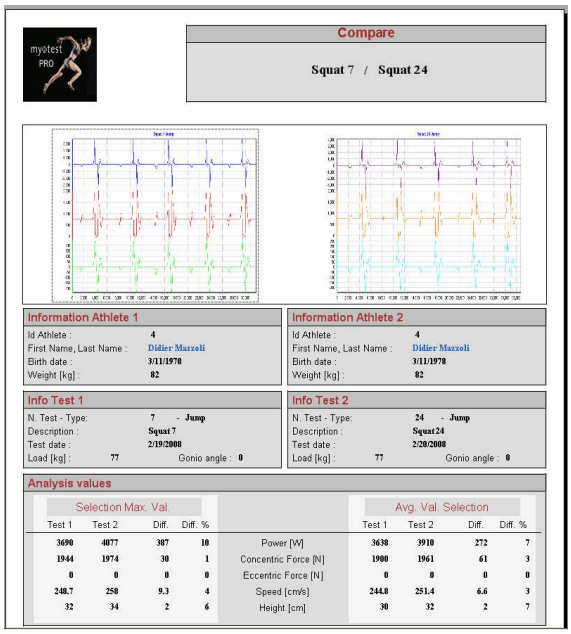
It is possible to add this comparison to an athlete's file. This enables the subject's development over the course of time to be followed.
The "Compare histograms" button is used to show repetitions of the same two tests in the form of histograms, enabling comparison not only of the basic values, i.e. power, strength and speed, but also the airborne time, contact time and the height of the jumps.

5.4.3 Saving the comparison

The "Save" button records the comparison under the current athlete's list of tests. Where two different athletes are involved, the comparison will be displayed in the list of tests for both.

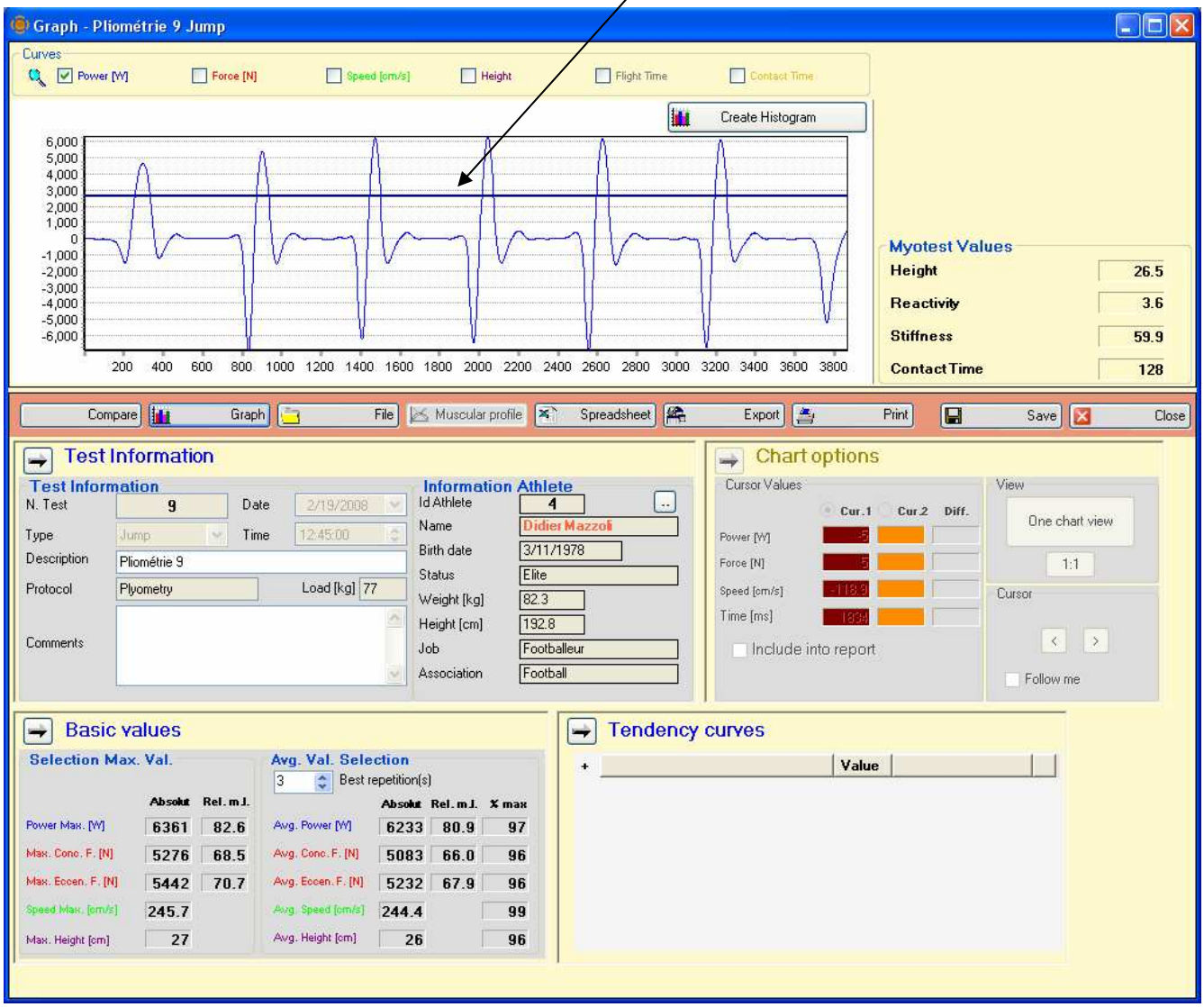
5.4.4 Printing the comparisons

The comparison window on the screen can be printed out.
The print report contains the graphics of the curves shown on the screen, information about tests 1 and 2, as well as the maximum values for each strength, force and speed test.

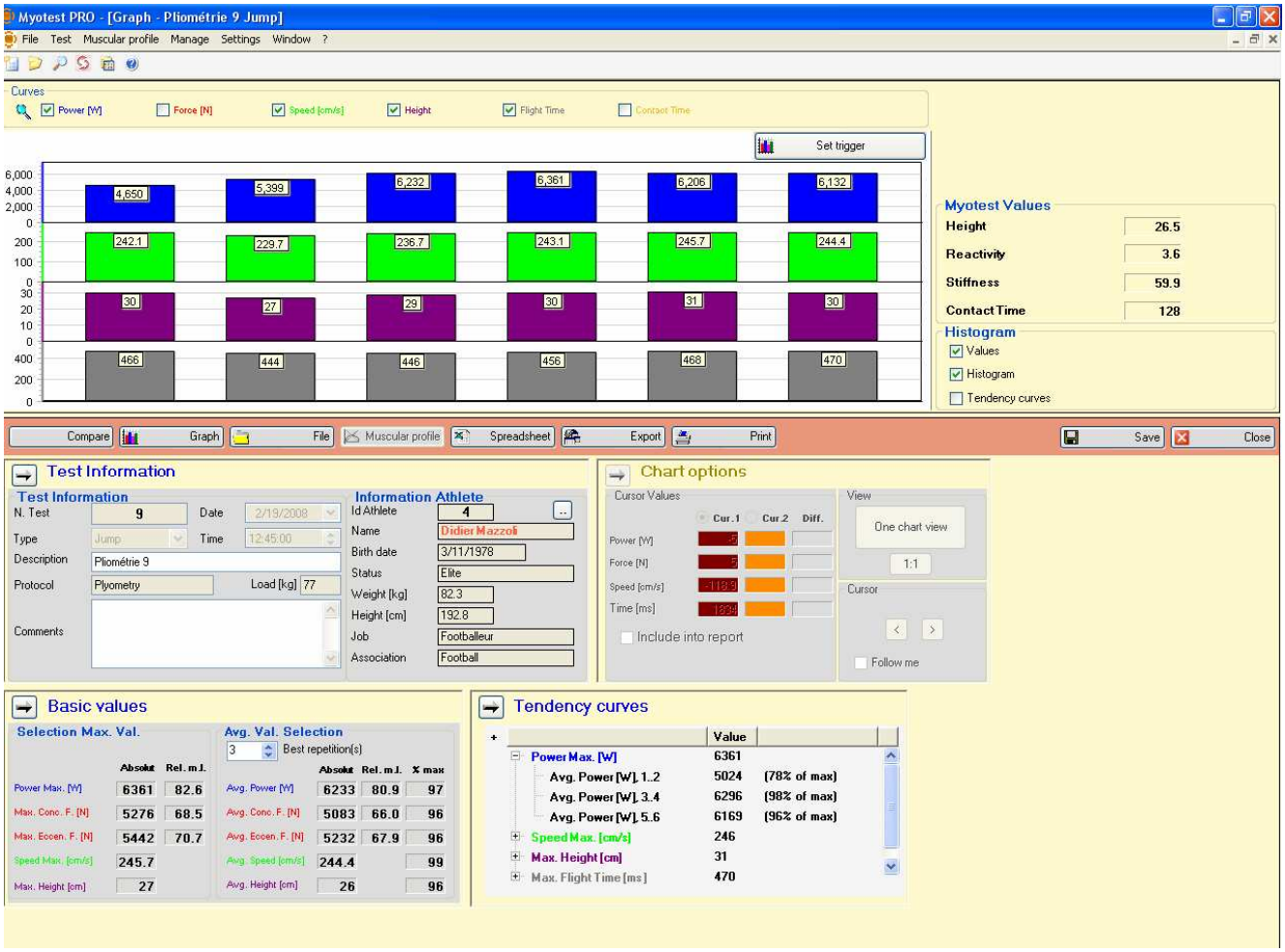

Compare
Squat 7 / Squat 24
Information Athlete 1
Id Athlete : 4
First Name, Last Name : Didier Mazzoli
Birth date : 3/11/1978
Weight [kg] : 82
Information Athlete 2
Id Athlete : 4
First Name, Last Name : Didier Mazzoli
Birth date : 3/11/1978
Weight [kg] : 82
Info Test 1
N. Test - Type: 7 - Jump
Description : Squat 7
Test date : 2/19/2008
Load [kg] : 77 Gonio angle : 0
Info Test 2
N. Test - Type: 24 - Jump
Description : Squat 24
Test date : 2/20/2008
Load [kg] : 77 Gonio angle : 0
Analysis values
Selection Max. Val.
Avg. Val. Selection
Test 1 Test 2 Diff. Diff. %
Power [W] 3690 4077 387 10 3638 3910 272 7
Concentric Force [N] 1944 1974 30 1 1900 1961 61 3
Eccentric Force [N] 0 0 0 0 0 0 0 0
Speed [cm/s] 248.7 258 9.3 4 244.8 251.4 6.6 3
Height [cm] 32 34 2 6 30 32 2 7

5.5 Histogram

It is possible to transform the tests into histograms, a sequential depiction of the peaks for the tests. To do this, all you need to do is click on the button "Histogram" in the analysis functions for the test to call up a graphic with a prompt for the value (trigger) on the basis of which the histogram will be calculated. The trigger permits the deletion of extraneous values in order to retain only the maximum values for each repetition, which in turn benefits the user. The max values of each peak located above that value will be taken into consideration to create the histogram.



When the value is selected, the user clicks on "Create histogram" to display the test converted into histograms.

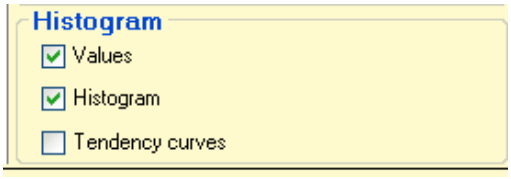


The graphics are divided into two or three parts, the first to represent strength, the second force and the last, the height of the jump, if a jump was involved.

There is the possibility of adding the display of histograms for speed and contact times, and for flight if the movement being analyzed is a jump, by checking the box provided for this purpose under the graphic.

It is entirely possible to change the value of the trigger, if it is not satisfactory, by clicking on the "Set trigger" button, which will return the window to its previous status.

The display of values for each histogram can be removed by deselecting the "Values" checkbox.

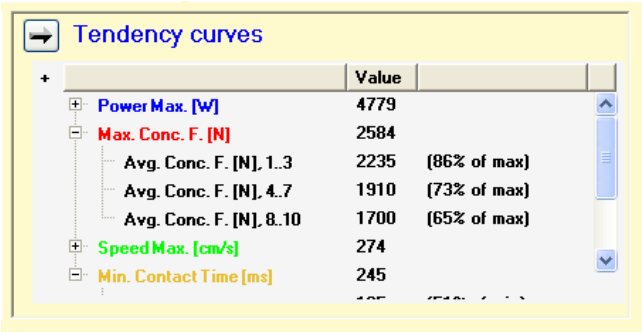


Similarly, it is possible to display tendency curves for each sequence, which provide a graphical display of the trend of repetitions.

To hide the histograms, simply deselect the corresponding checkbox.

By pressing the button “Save”, the histogram is saved, so that it may reload as needed.

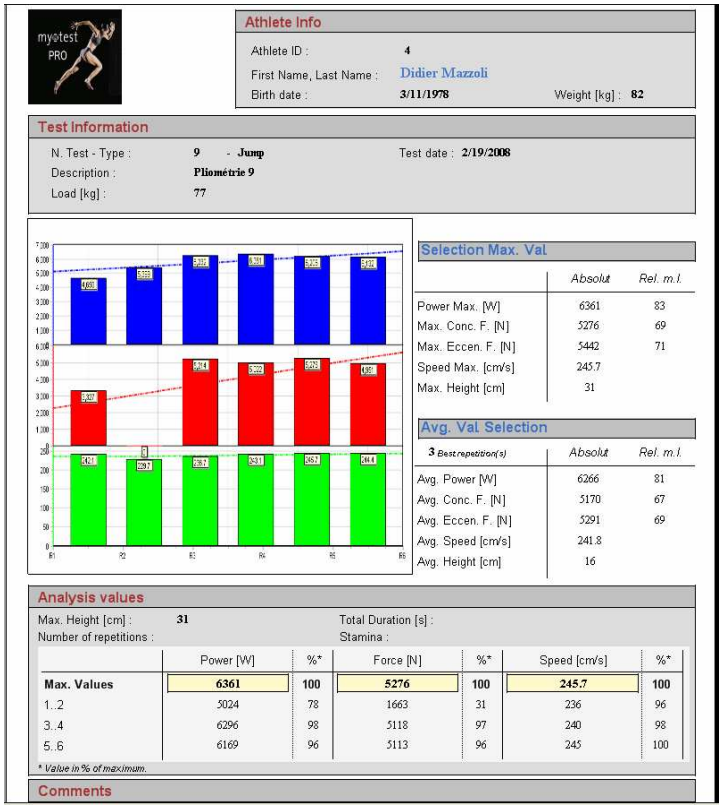
5.5.1 Tendency curves


Tendency curves
Value
Power Max. [W] 4779
Max. Conc. F. [N] 2584
Avg. Conc. F. [N], 1..3 2235 (86% of max)
Avg. Conc. F. [N], 4..7 1910 (73% of max)
Avg. Conc. F. [N], 8..10 1700 (65% of max)
Speed Max. [cm/s] 274
Min. Contact Time [ms] 245

This information panel regroups repetitions of the histogram in 3 parts, and calculates the average for each third, as well its ratio to the maximum value for the entire histogram.

If the histogram does not include at least 3 repetitions, it is not possible to obtain information about the tendency curves.

5.5.2 Printing Histograms

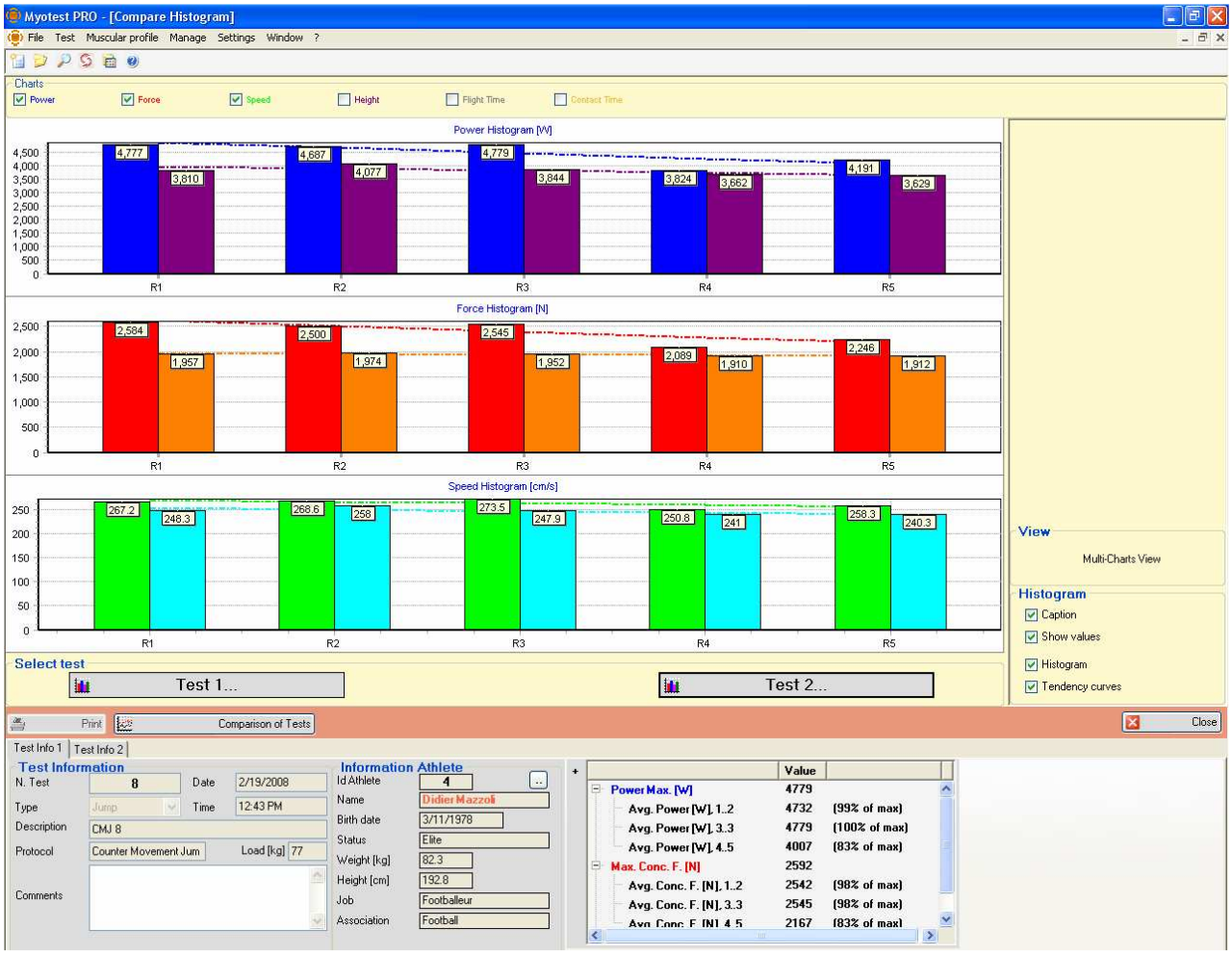

Athlete Info
Athlete ID : 4
First Name, Last Name : Didier Mazzoli
Birth date : 3/11/1978 Weight [kg] : 82
Test Information
N. Test - Type : 9 - Jump Test date : 2/19/2008
Description : Pliométrie 9
Load [kg] : 77
Selection Max. Val
Absolut Rel. m.l.
Power Max. [W] 6361 83
Max. Conc. F. [N] 5276 69
Max. Eccen. F. [N] 5442 71
Speed Max. [cm/s] 245.7
Max. Height [cm] 31
Avg. Val. Selection
3 Best repetition(s)
Absolut Rel. m.l.
Avg. Power [W] 6266 81
Avg. Conc. F. [N] 5170 67
Avg. Eccen. F. [N] 5291 69
Avg. Speed [cm/s] 241.8
Avg. Height [cm] 16
Analysis values
Max. Height [cm] : 31
Number of repetitions :
Total Duration [s] :
Stamina :
Power [W] % Force [N] % Speed [cm/s] %
Max. Values 6361 100 5276 100 245.7 100
1..2 5024 78 1663 31 236 96
3..4 6296 98 5118 97 240 98
5..6 6169 96 5113 96 245 100
* Value in % of maximum.
Comments

The button "Print" produces a report sheet for the histograms shown on the screen, with the maximum values and averages for strength, force, speed and height, when a jump is involved.

The average values are calculated on the basis of the number of repetitions selected on the histogram display screen.

5.5.3 Comparison of Histograms

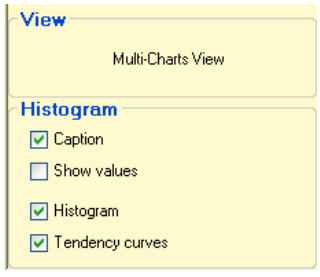
A comparison of histograms can be made between histograms which have been saved previously. To do this, you only have to click on the button "Compare" in the window displaying the histogram.



The user chooses the histograms to be compared by clicking on Test 1… and Test 2… The information about each of the histograms appears in the bottom part of the window, while in the upper part, the two histograms are placed side by side to visually emphasize the differences.

It is possible to display the test comparison directly from this screen by clicking on the "Comparison of tests" button.

It is also possible to print out comparisons of histograms. The printed sheet contains the same data as when a single histogram is printed.

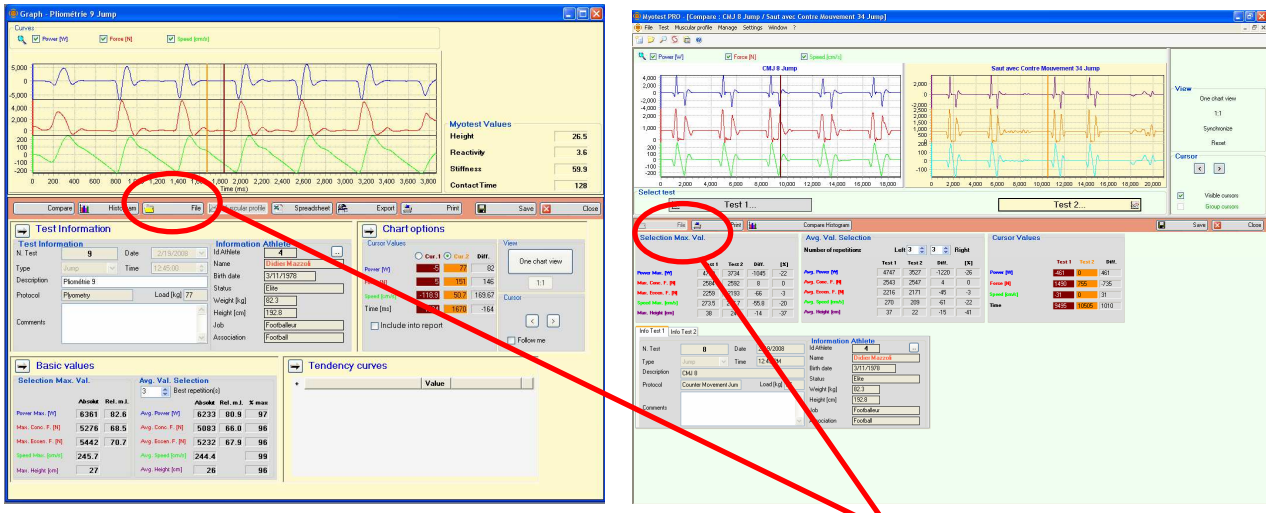


To obtain a split view of the histograms (left/right view), press the "multi-charts" / "simple view" button.

The various checkboxes opposite are used to display and hide certain histogram components.

5.6 Monitoring an Athlete

You can monitor athletes in order to observe their muscle development. A 'follow-up' is a set of tests or test comparisons, showing the subject's development over time. An athlete may have one or more follow-ups.



From a test or test comparison, click on the "File" button. If the "File" button is not activated, save the comparison first. Once this has been done, it will be possible to add it into the athlete's file.

5.6.1 Selecting a monitoring file

Once the "monitor" button has been clicked, the application asks which file the current test is to be added to.

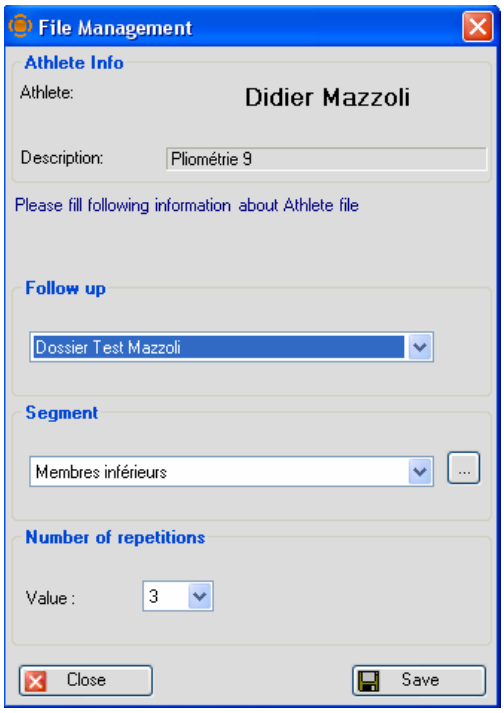
There are then two possibilities:

- A new monitoring file
- An existing monitoring file.

If there has been a data-handling error, it is possible to halt the procedure by clicking on the "Cancel" button.

5.6.2 Management of the monitoring file

Once this option is selected, the user is to specify the name for the file (in creation mode) or select one from existing athlete files. If no files exist, the screen moves automatically into creation mode.



The segment indicates which muscle group is the focus of this file. Select from the list of suggested segments. If none meets the requirements, segments can be managed by accessing the relevant window using the "..." button located on the right of the screen.

The number of repetitions included in the test still needs to be specified. The permitted values are:

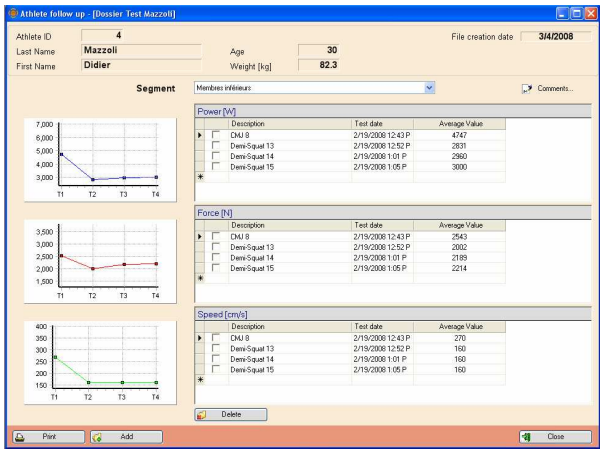
- 1 repetition
- 2 repetitions
- 3 repetitions
- >3 repetitions.

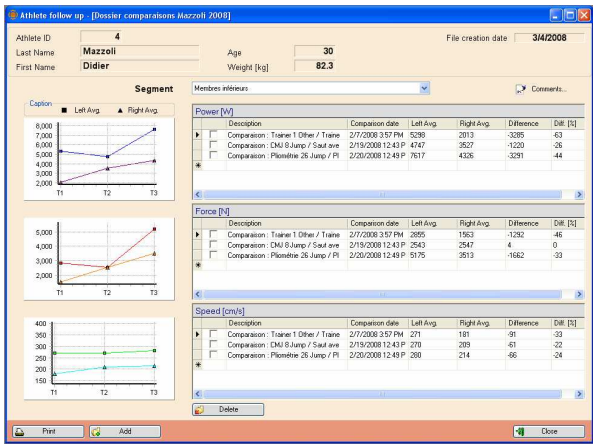
Once these three fields have been set, it is possible to record the test when monitoring the athlete.
If required information is missing, a message warns the user.

It is then possible to directly enter the athlete's file by pressing the "Access athlete's monitoring file" button.

5.6.3 Athlete follow-up

This is the screen tracing an athlete's muscle development over time:





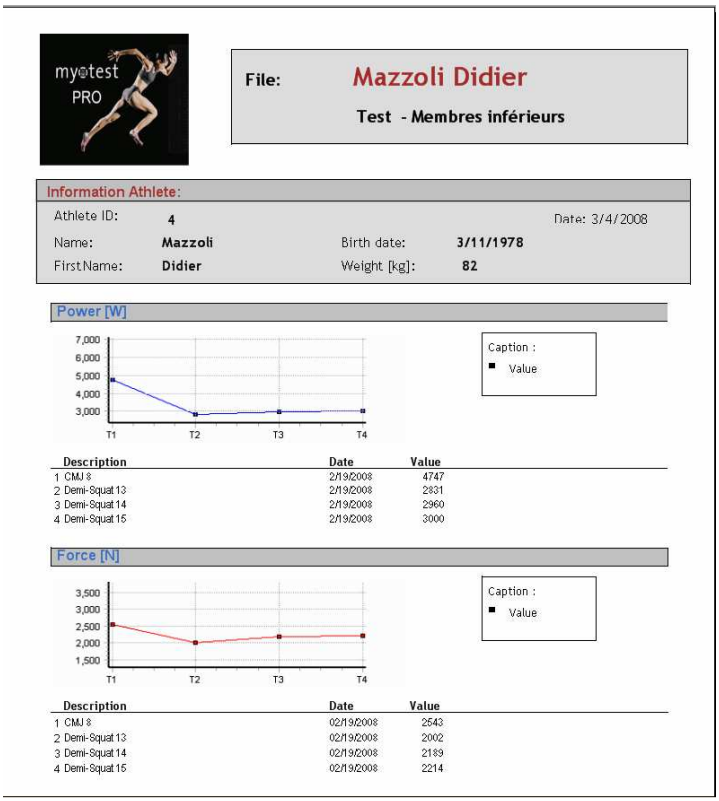
The upper part of the screen displays some basic information about the athlete and this file.

To navigate through the follow-up files for this athlete, of the same type (tests or comparisons) but for different segments, you can use the drop-down list located at the top of the screen.

From this screen, it is possible to delete tests from a file. To do so, select a test by checking the box in one of the lists representing the values for power, strength and speed, then click on the "Delete" button at the foot of the lists. After a confirmation request, the test will be deleted from the monitoring file and the curves re-drawn to take the new situation into account.

Furthermore, it is possible to add tests to an athlete's file. The "Add" button is used for this operation, opening a list of available tests. Once the selection is made, use the same process as described previously for adding a test or a comparison to a profile. The charts containing tests or comparisons will obviously be updated again at the same time.

A file can be printed, which gives the result below:



Finally, comments may be added to each file. They will be shown on the report when it is printed. To add text to an athlete's file, click on the "Comments..." button located in the upper right hand area of the screen.

5.7 Muscular profile

The objective of a muscular profile is to find the ideal load to be lifted in order to improve performance parameters. This comes down to evaluating the maximum load that a subject is capable of lifting without having to actually lift it. This maximum load is defined as the MR (maximum repetition).
To determine the MR for an athlete, the idea is to carry out between 3 to 8 repetitions of the movement by increasing the load to be lifted in each series.

By tracing a muscular profile, the best force-speed ratio can be determined and thus permits you to adapt training based on the performance parameters that you wish to improve.

There are two ways of obtaining a muscular profile.

The first is to produce them using the two procedures contained in the Myotest, which can be used to produce a full muscular profile and to then transfer it as it is to the software.

The second, more "manual", method, consists of conducting a series of at least three tests such as a bench press, half-squat or even a free test (eight procedure: "Coach"), and transferring them to the software and building your own muscular profile.

The window for the muscular profile is opened by clicking on the button “Muscular profile” in the analysis functions of the graphic window for a test (5.3), or from the menu bar of the software (Muscular profile-Create…).
Select the test realized with the lightest load. The other tests carried out by the same athlete on the same day are automatically selected in order to establish the muscular profile.

5.7.1 Muscular profile – following the Myotest procedure

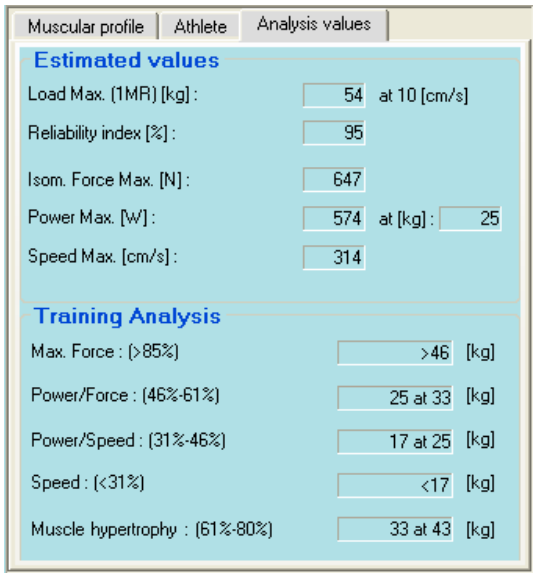
From an athlete's list of tests, select a Muscular profile that you have produced using the Myotest. The window looks like the one below:

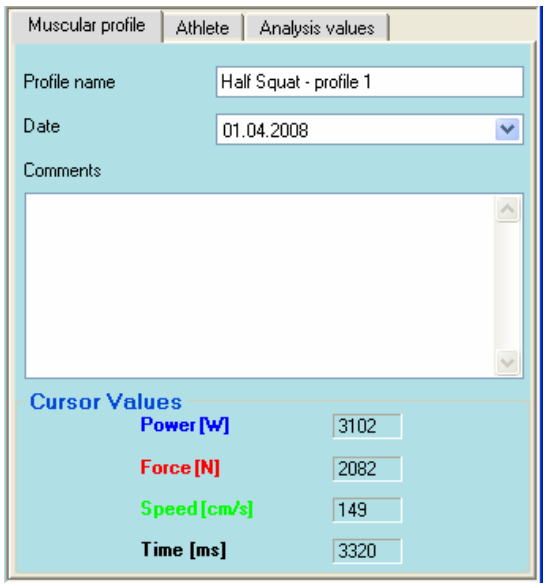
Checking the color boxes hides or displays the desired curves. It is also possible to display a key describing the curves and the points on the graph.

The analysis values tab indicates the loads to be used to focus training on one particular aspect.

It is divided into two groups, estimated values for the profile and indicative values for appropriate training.

The reliability percentage indicates the degree to which the muscular profile has been completed and whether the values given are reliable. The closer the index is to 100%, the more reliable the values are considered to be.


Muscular profile
Athlete
Analysis values
Estimated values
Load Max. (1MR) [kg] : 54 at 10 [cm/s]
Reliability index [%] : 95
Isom. Force Max. [N] : 647
Power Max. [W] : 574 at [kg] : 25
Speed Max. [cm/s] : 314
Training Analysis
Max. Force : (>85%) >46 [kg]
Power/Force : (46%-61%) 25 at 33 [kg]
Power/Speed : (31%-46%) 17 at 25 [kg]
Speed : (<31%) <17 [kg]
Muscle hypertrophy : (61%-80%) 33 at 43 [kg]

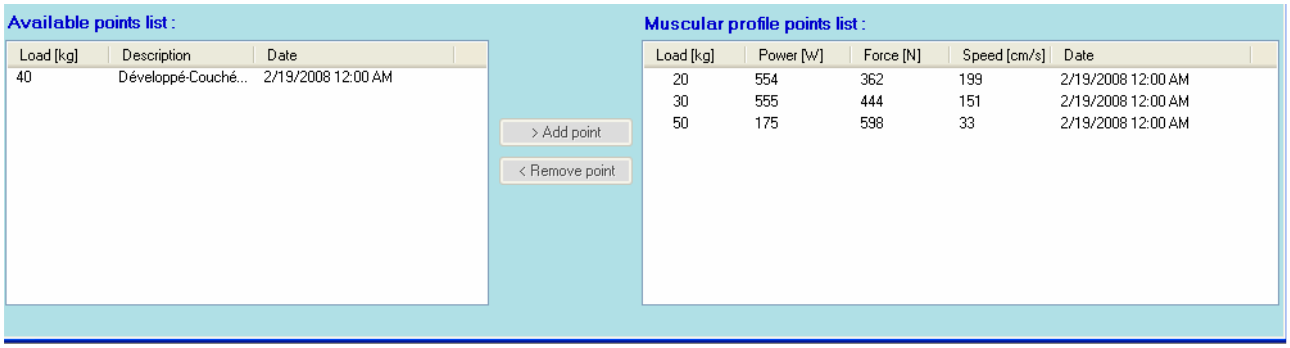


The "Athlete" tab displays information about the athlete to whom the muscular profile belongs.

Profile data is displayed in the "Muscular profile" tab.

Inserting comments in the text box provided for the purpose will include the comments in the printed report.

A profile comprises a set of points (three minimum), which can be used to determine a trend. It may sometimes be helpful to delete points whose values seem irregular or which, through being carried out unsatisfactorily, result in a significant reduction in the profile's reliability.


Available points list :
Load [kg] Description Date
40 Développé-Couché... 2/19/2008 12:00 AM
> Add point
< Remove point
Muscular profile points list :
Load [kg] Power [W] Force [N] Speed [cm/s] Date
20 554 362 199 2/19/2008 12:00 AM
30 555 444 151 2/19/2008 12:00 AM
50 175 598 33 2/19/2008 12:00 AM

When the profile is edited for the first time, all the points used to build this profile are in the list on the right, and the chart shows this situation.

It is possible to remove a point from the muscular profile by clicking on the "< Remove point" button, or by double clicking on a test in the right-hand list.

If this would mean there would no longer be the three-point minimum, a message warns the user that removal is not possible.

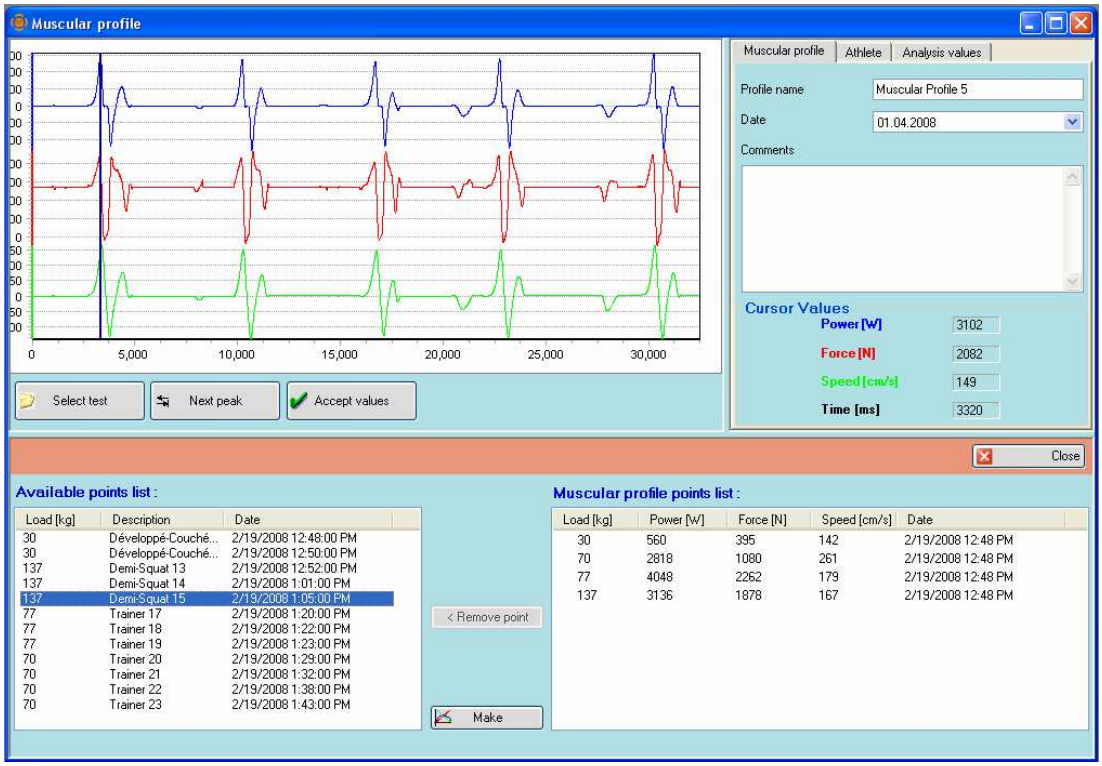
It is possible to add a point to the muscular profile by clicking on the "> Add point" button, or by double clicking on a test in the left-hand list.

Adding or removing points leads to a re-arrangement of the list, sorting the loads in ascending order, and to the updating of the estimated and training values.

To obtain a printable report of this muscular profile, simply click on the "Print" button.

5.7.2 Muscular profile – manual method

From the main screen, select the "Muscular profile" ► "Create" option, or from the window for a bench press, half-squat or coach test, click on the "Muscular profile" button.



From the main window, all lists are empty. The "Select test" button must be pressed to select a test. Coming back to the screen from test selection, the list of available points will be filled in with the bench press, half-squat or coach tests carried out by the same athlete, within a time bracket of 60 minutes before and after the selected test.

When a test is clicked, the curve is drawn on the screen. It is possible to navigate from peak to peak using the "Next peak" button to select the appropriate repetition. Once the appropriate repetition is selected – it is possible to see the cursor values in the "Cursor values" box - the values need to be accepted.

Once the "Accept values" button is pressed, the selected test with the right repetition is added to the list of points making up the profile.

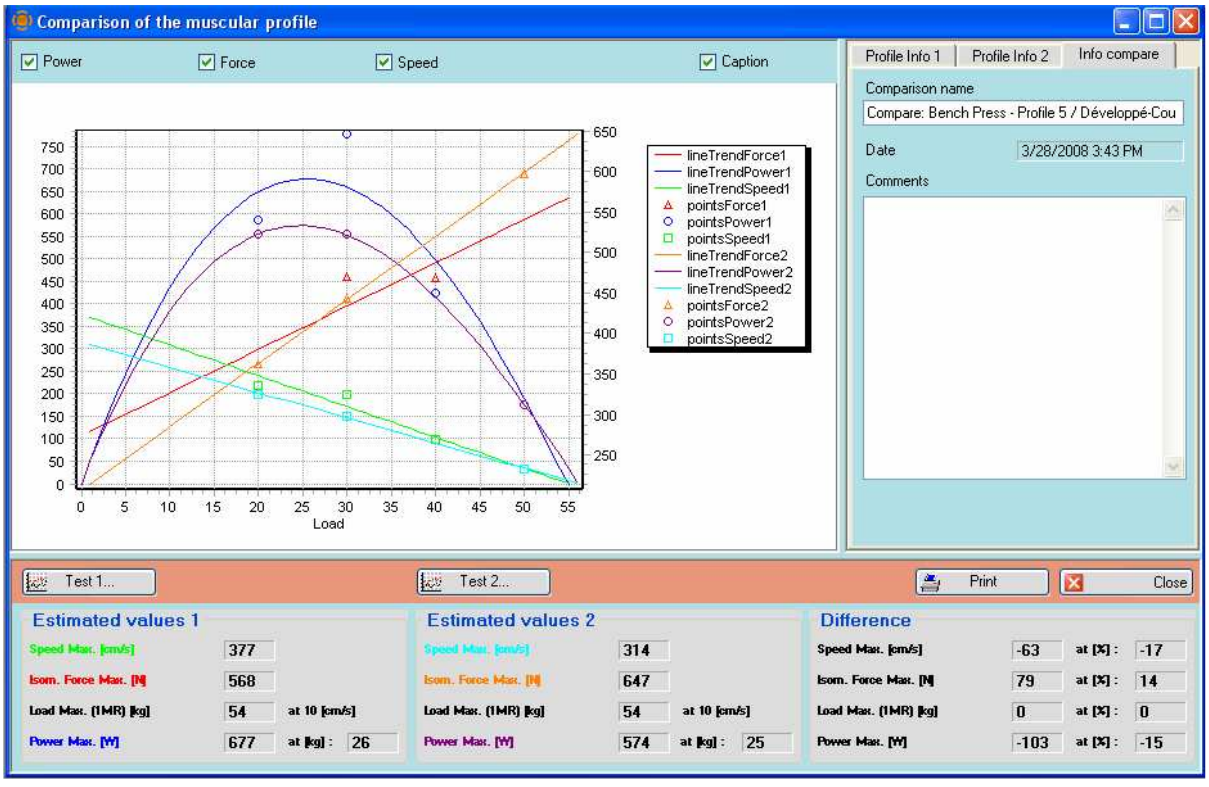
When the list contains a minimum of three points, it is then possible to build the profile by clicking on the "Make" button. If the values are too wide-ranging, a message warns you that building a profile is not possible with such values. This means that "Undo" must be clicked, and tests removed using the "< Remove point" button.

Note: It is no longer possible to add points to a profile once it has been saved. On the other hand, removing points from a profile is permitted, but under no circumstances can they be added from new tests which are subsequently carried out, or from other tests existing in the application.

5.8 Comparison of muscular profiles

A comparison of two muscular profiles can be visualized for profiles which have been saved. To do this, all you need to do is click on the "Compare" button in the window of the muscular profile or make a selection in the menu Muscular profile-Comparison.

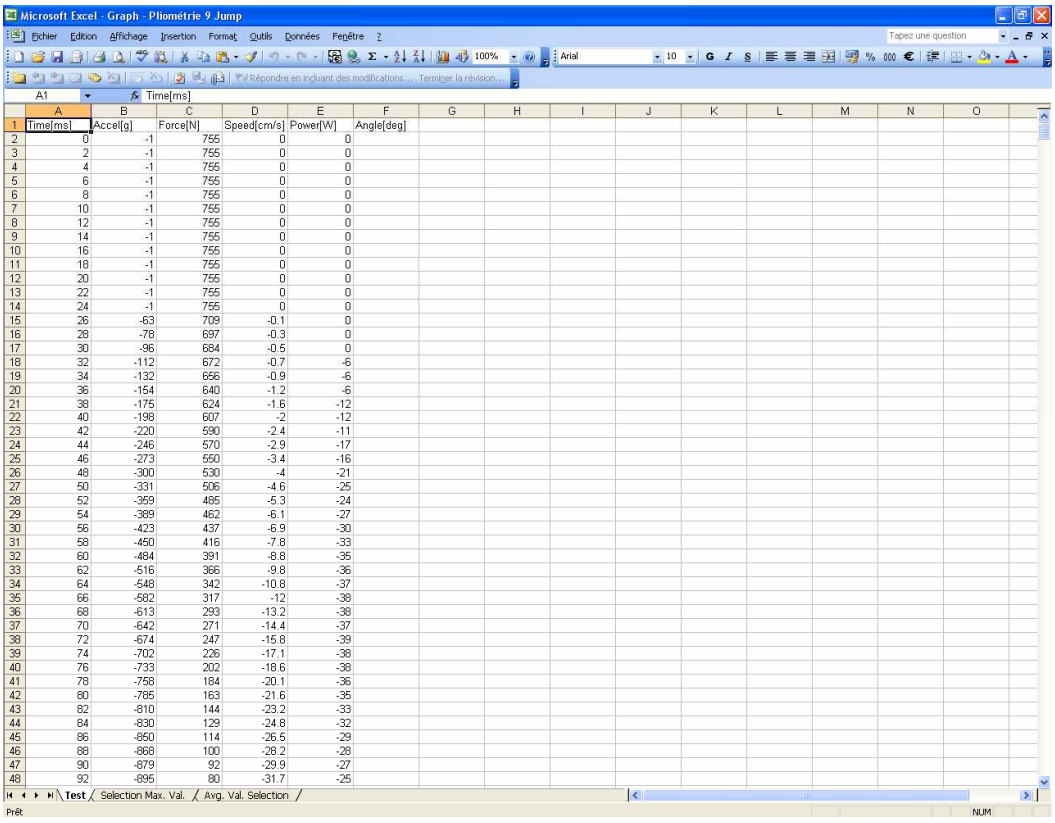
Click on test 2 and select another profile data file which may or may not be from the same athlete. The following window is displayed, and allows you to compare the two profiles. By clicking on the buttons "Test 1" or "Test 2", you can choose other profiles. When you want to select a profile in the manager, only the files of muscular profiles appear, thus facilitating the search for a muscular profile file.



It is also possible to print comparisons of muscular profiles. The printed sheet contains the same data as when a single muscular profile is printed.

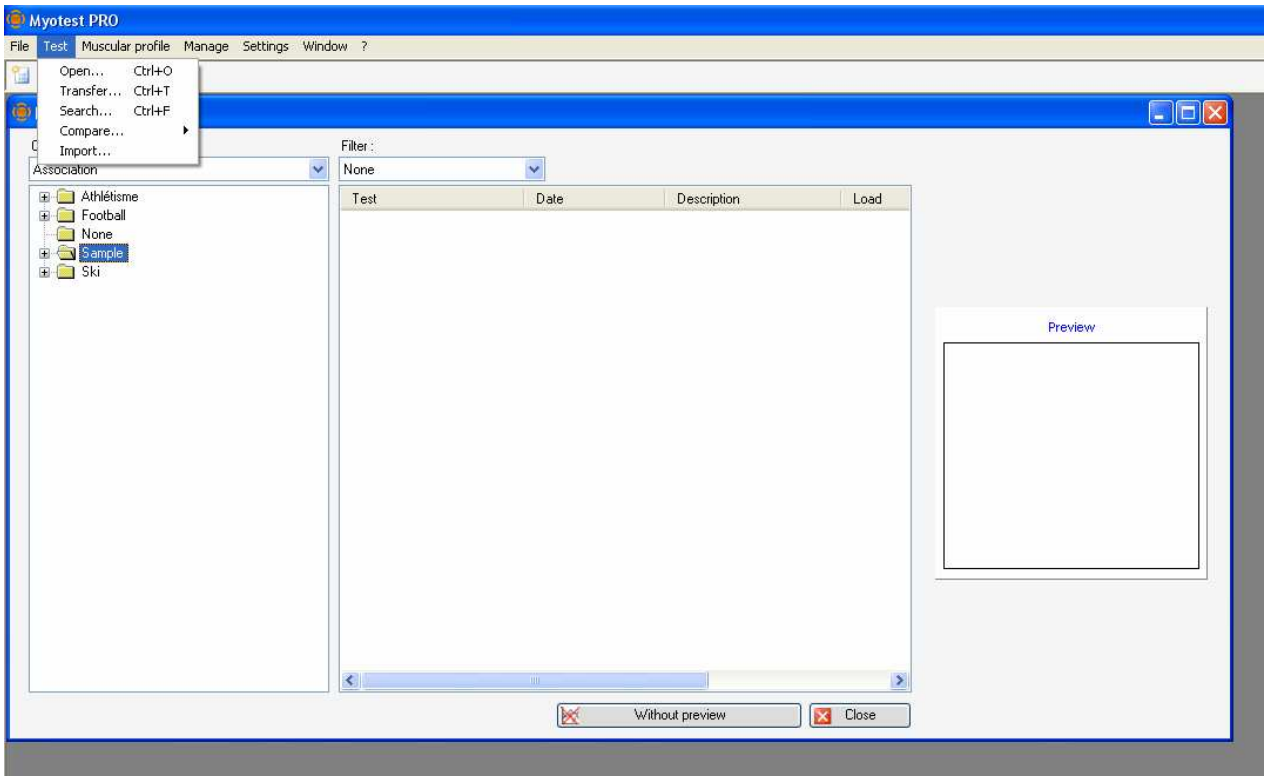
5.9 Exporting data to Excel

The button "Spreadsheet" allows the export of data for acceleration signals, for force, strength and speed into an Excel file.

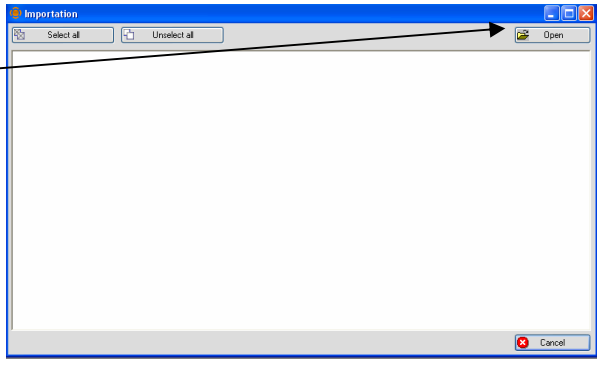


6 Importing tests

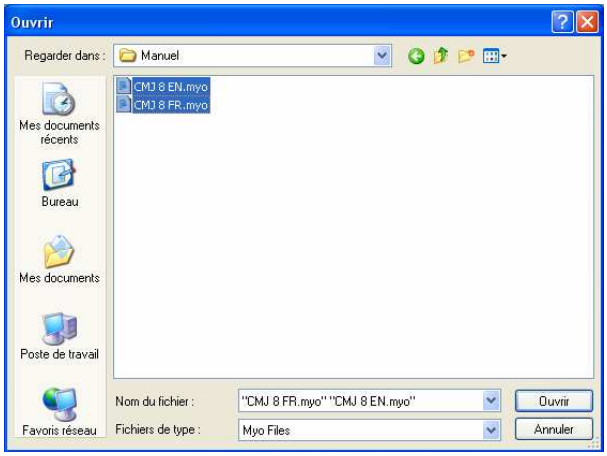
This function (Test-Import…) is of interest when you have received the tests via internet or another form. You can thus import one or more tests.



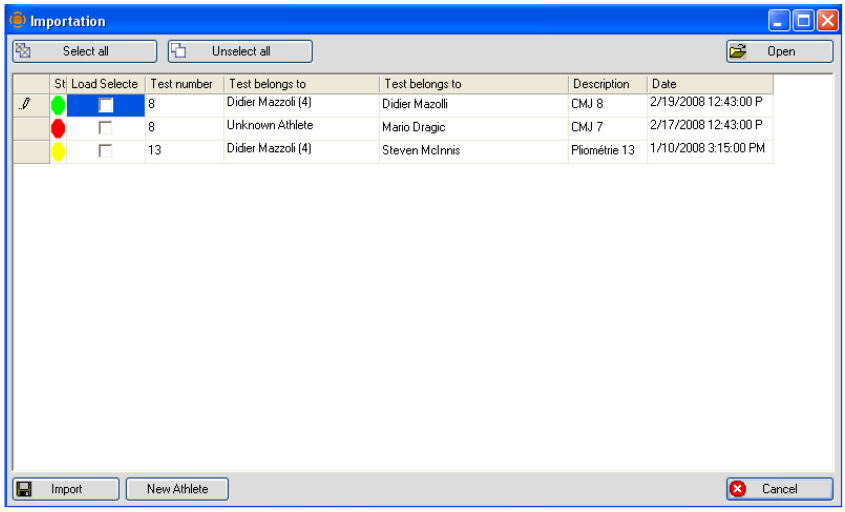
Once the menu option is chosen, the window opposite appears:



Click on this button and select the test or tests to be imported. These files are recognizable by their **.myo** extension.



The window "Import" will then appear.



Explanation of the columns:

Status: indicates whether the test can be imported (*See below for an explanation of the different colors*).

Load test: check tests to be loaded, leave the box empty for tests to be ignored.

Test number: the test number.

Test belongs to [1]: indicates to which athlete the test is to be linked.

Test belongs to [2]: indicates which athlete carried out this test on the application whose tests have been exported.

Description: a description of the test.

Date: date the test was carried out.

It is possible to automatically select or unselect all the tests using the buttons "Select all" and "Unselect all".

Please note:

- If the disk is green, the test can be imported without problems.
- If the disk is amber, this means that the athlete's first name, last name and ID already exist in the database but are different, for example a test by Didier Mazzoli is imported under Athlete ID number 4, whereas in the database, the tests carried out by Didier Mazzoli have Athlete ID number 10. In this case, simply select the relevant athlete from the list of values that appears when the "Test belongs to [1]" column is clicked.
- If the disk is red, this means that the First name/Last name or the Athlete ID of the subject who took the test is not in the database. The subject must therefore be recorded using the "New athlete" button.

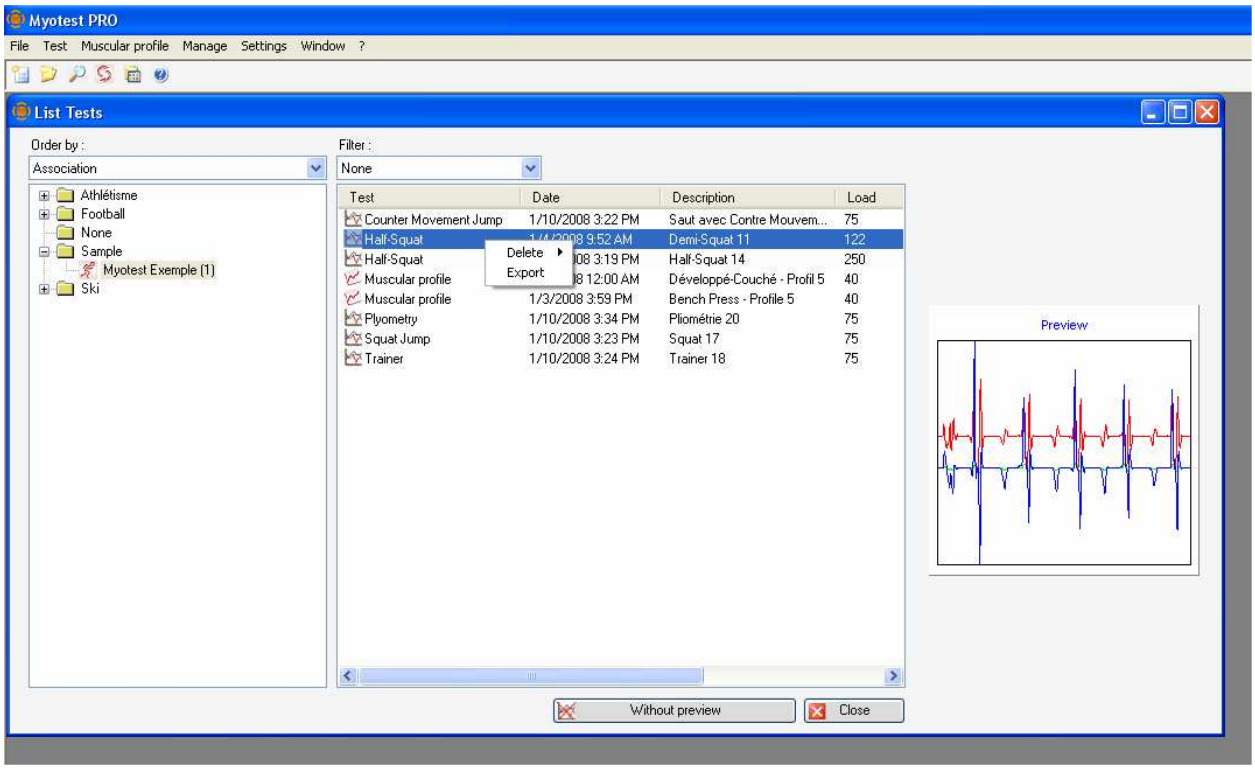
A test can only be imported when the disk is green!

7 Exporting tests

It is possible to forward these tests to another Myotest PRO application. To achieve this, the test must be exported.

The names of the exported files can include numbers, letters and only the "_" character.

This function is accessed by right-clicking with the mouse on the list of tests. It is possible to export one or more tests from a list in one operation by selecting all the tests before right-clicking with the mouse.

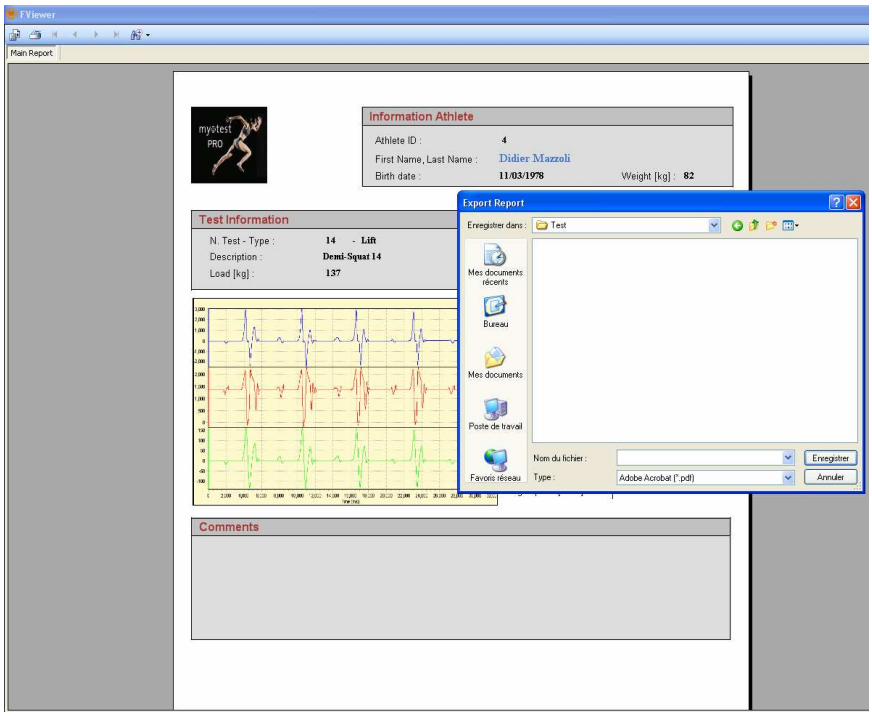


Only tests can be exported; it is not possible to export comparisons, histograms, follow-up files or the muscular profile for an athlete.

It is also possible to export a test with the help of the button "Export" in the window showing a test.

8 Printing and exporting reports

All analyses can be printed as previously described. It is also possible to export these documents in various forms for subsequent editing.



The report may be exported in several formats:

- pdf (Acrobat reader)
- doc (Word),
- xls (Excel),
- rtf (Rich Text Format).

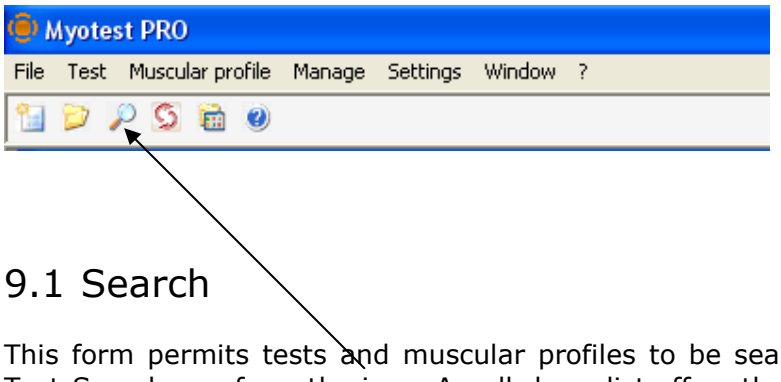
(Select the export location and format.)

8.1 Addition of a logo when printing reports

In the menu Settings-Options… of the software, you can choose a logo for printing reports.

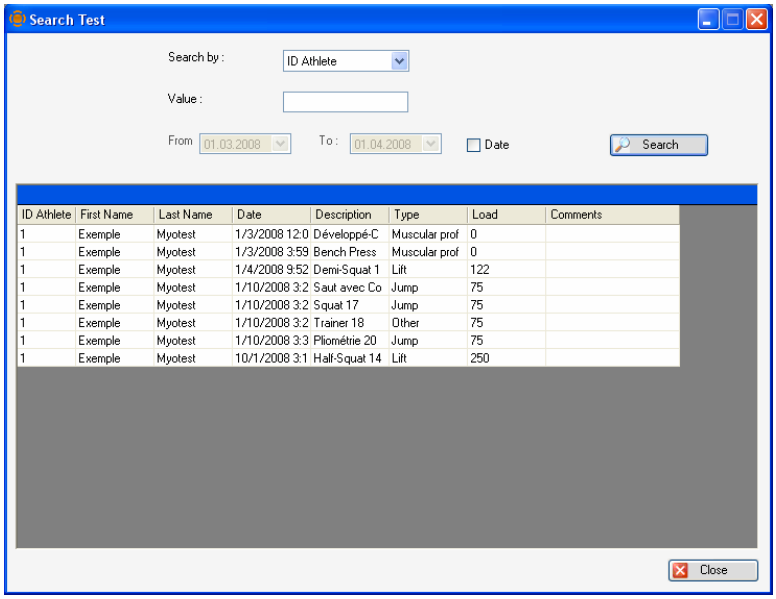
All you need to do is click on "Change" to insert a logo (N.B.: The old logo will be permanently deleted).

9 Menus, options and software configuration



9.1 Search

This form permits tests and muscular profiles to be searched. This function is started from Test-Search… or from the icon. A pull-down list offers the user the choice of what criteria will be used for the search (athlete identifier, test number, description, type, comments or even all tests).



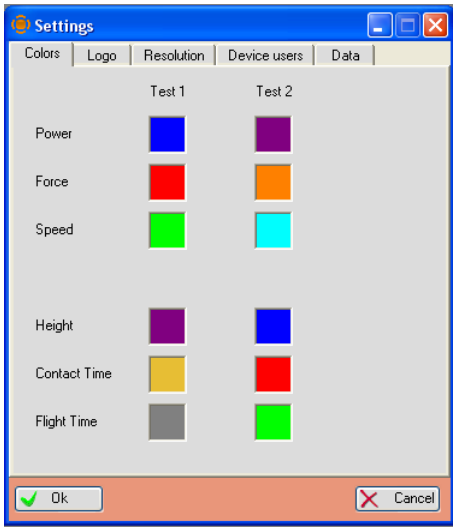
When certain search criteria are selected, such as the athlete identifier or the test number, you can then only input numeric values. You have the possibility of refining the search by choosing a precise period in which the tests were carried out (date from, date to).

In the event that no test corresponds to the search criteria which have been selected, a message regarding the unsuccessful search will be posted.

9.2 Application settings

This function can be reached via the Settings-Options… menu or the shortcut icon.
This form is used to change certain settings in the application.

9.2.1 Chart curves color settings



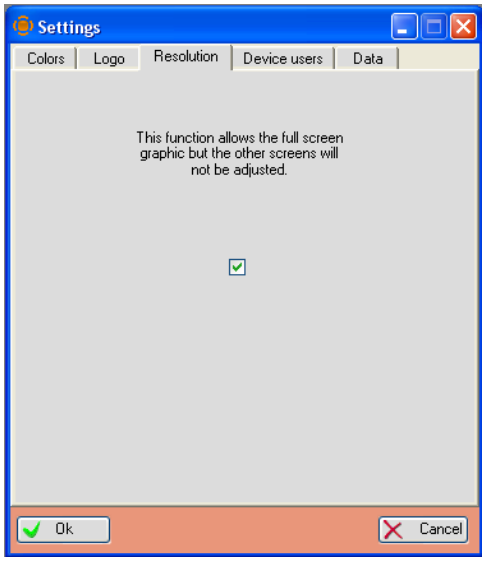
Each square corresponds to the color of the series shown on the charts. By clicking on a square, a window allows us to change the color for the selected series.

Note that the new colors chosen will not be used until the next time that the software is used. To be able to use them immediately, it is therefore necessary to exit the application and re-enter.

9.2.2 Resolution settings

The "Resolution" setting offers advanced users the option of working with maximized windows for test graphics, in order to make maximum use of the space available on the screen to display the charts.

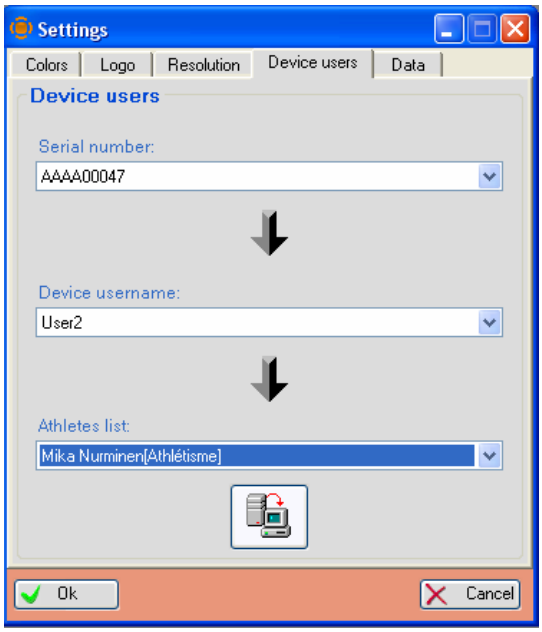
Activating this option leads to restrictions in the presentation of the other forms. In fact, certain forms, such as the addition of statuses, will also be displayed in maximized mode.



9.2.3 Myotest user administration

When transferring data with the Myotest, we have seen previously that it is necessary to link a Myotest user (User1, User2, etc.) to an athlete stored in the local database. It may sometimes be necessary to update this link.

This is possible using the "Myotest users" administration screen.



The update takes place in three stages:

1. select the device concerned from the list of devices recognized by the software. This list is sorted by device serial number.

2. select the user affected by this change for the selected Myotest (User1, User2, etc.).

3. the list now displays the athlete currently linked to this user. The athlete who will now be linked to this user is to be selected from the athletes held in the database.

4. click on the confirmation button:

9.3 Software language

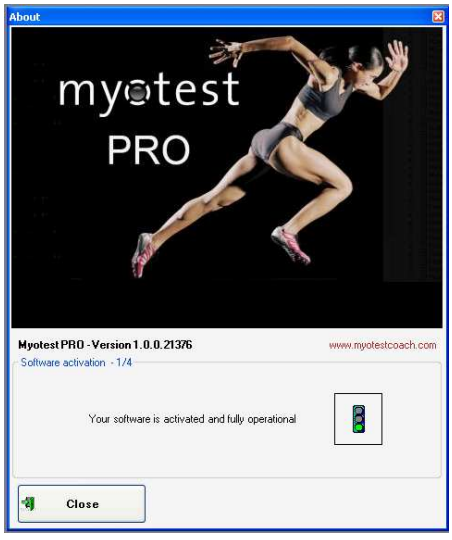
The software is currently translated into the following languages:

- French
- English
- German
- Italian
- Spanish
- Dutch

This can be modified in the "Settings – Language" menu.

9.4 About

This window indicates the software type and version. If you click on the internet link, it then opens the Myotest website homepage. This screen also tells you the status of the software, i.e. whether it is in DEMO or Activated mode.



10 Saving the database

For your security, it is recommended that you regularly save your database on an external disk or on your main drive, in another folder.

1. Open the folder Myotest in **C:\Program Files\Myotest\Database**
2. Right click with your mouse on **DBMyotest.mdb** and **DBMyotest_LOG.ldf**.
3. Choose "copy".
4. Choose "paste" to copy it into your back-up folder.

If there are any problems, carry out the steps in your last backup in reverse order.